

AUTHORIZED BY: SC

DATE: 5/16/13

AIR QUALITY MONITORING PROGRAM

One 168-hour sample is taken each month at each of the four locations specified by Marc Nelson. They are collected about three meters above the ground on GF/A Glass Microfibre filter paper, using an RAC Heavy-duty Sampler.

AMBIENT RADON STUDY

Radon-222 is monitored continuously at each of the air sampling locations specified by Marc Nelson. The samples are monitored by the use of the Model RGM-2 Radon Gas Monitor. Normal data output is printed hourly and a 24-hour average is printed at the end of a 24-hour period.



9404157

JACKPILE - WATER RADIOLOGICAL ANALYSIS

(THIRD QUARTER, 1983)

<u>DESCRIPTIVE LOCATION</u>	<u>Radium-226 pCi/L</u>			<u>Uranium-Natural ppm</u>		
	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Jul.</u>	<u>Aug</u>	<u>Sep.</u>
Rio Paguate Upstream	0.23	0.29	0.30	0.0031	0.0030	0.0010
Rio Moquino Upstream	<0.20	<0.20	0.33	0.0030	0.0038	0.0092
Rio Paguate Above the Confluence	1.04	1.20	2.75	0.155	0.150	0.292
Rio Moquino Above the Confluence	0.40	0.61	0.71	0.048	0.048	0.023
Rio Paguate Ford Crossing	0.52	4.61	1.23	0.232	0.401	0.211
Paguate Reservoir	0.38	3.21	3.77	0.022	0.024	0.154
Jackpile Well #4	0.32	*	*	0.0021	*	*
Jackpile New Shop	1.64	*	*	0.0021	*	*
Jackpile Old Shop	*	*	*	*	*	*
Mouth of Oak Canyon Wash	**	**	**	**	**	**

* Discontinued ,no sample

**No sample because the Mouth of Oak Canyon Wash was dry.

DESCRIPTION	DATE	pH	TDS ppm	Cond umhos	HCO ₃ ⁻ ppm	Cl ⁻ ppm	SO ₄ ⁼ ppm	Na ⁺ ppm	K ⁺ ppm	Ca ⁺⁺ ppm	Mg ⁺⁺ ppm	NO ₃ ⁻ ppm	F ⁻ ppm	SiO ₂ ppm	Mn ⁺⁺ ppm			
Rio Paguete Upstream	7/1/83	7.69	819	950	305	14	288	48	6.1	107	49	1.2	0.41	33.1	0.015			
Rio Moquino Upstream	7/1/83	8.06	1796	1800	251	18.5	1045	195	8.9	149	126	1.4	0.64	9.6	<0.005			
Rio Paguete Above the Confluence	7/1/83	7.80	1756	1950	403	20	884	135	10	162	140	1.1	0.72	20.2	0.081			
Rio Moquino Above the Confluence	7/1/83	8.03	2222	2200	268	21	1328	247	8.8	180	167	1.1	0.85	15.1	0.016			
Rio Paguete Ford Crossing	7/1/83	7.14	2229	2100	298	24.5	1300	248	9.1	177	170	1.4	0.84	15.9	0.007			
Paguete Reservoir	7/1/83	7.30	1392	1450	227	17.0	769	164	8.5	101	103	1.2	0.58	1.0	0.13			
Jackpile #4	7/1/83	8.33	791	830	378	11.0	174	222	0.7	2.4	0.4	1.4	1.0	10.1	0.01			
Jackpile New Shop	7/1/83	7.98	1584	1720	390	33.0	672	470	2.6	12	1.7	1.6	1.2	13.8	0.025			
Jackpile Old Shop			DISCONT	NUED, NO	SAMPLE													
	DATE	As ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm	Cu ppm	Fe ppm	Zn ppm	Mo ppm	Ni ppm	V ppm				
Rio Paguete Upstream	7/1/83	<0.005	0.06	<0.001	<0.005	<0.01	<0.0005	<0.005	0.007	0.008	0.003	<0.01	<0.005	<0.05				
Rio Moquino Upstream	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.002	<0.005	0.001	<0.01	<0.005	<0.05				
Rio Paguete Above the Confluence	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.002	0.018	0.001	<0.01	<0.005	<0.05				
Rio Moquino Above the Confluence	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.001	<0.005	0.001	<0.01	<0.005	<0.05				
Rio Paguete Ford Crossing	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.001	0.040	0.001	<0.01	<0.005	<0.05				
Paguete Reservoir	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.002	0.082	0.001	<0.01	<0.005	<0.05				
Jackpile #4	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.002	0.041	0.035	<0.01	<0.005	<0.05				
Jackpile New Shop	7/1/83	<0.005	<0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.003	0.021	0.003	<0.01	<0.005	<0.05				

CONFIDENTIAL

DISCONTINUED, NO SAMPLE

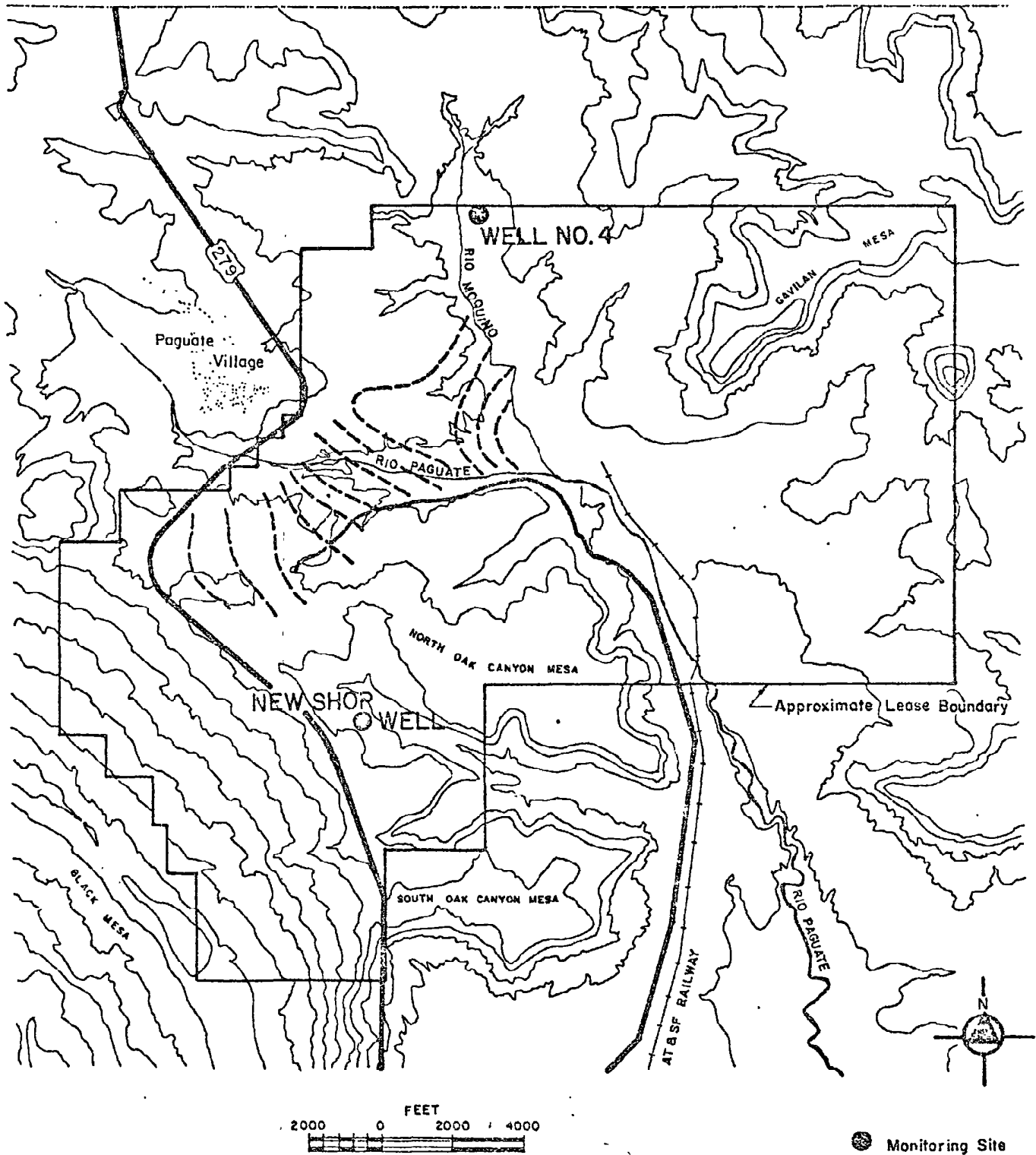
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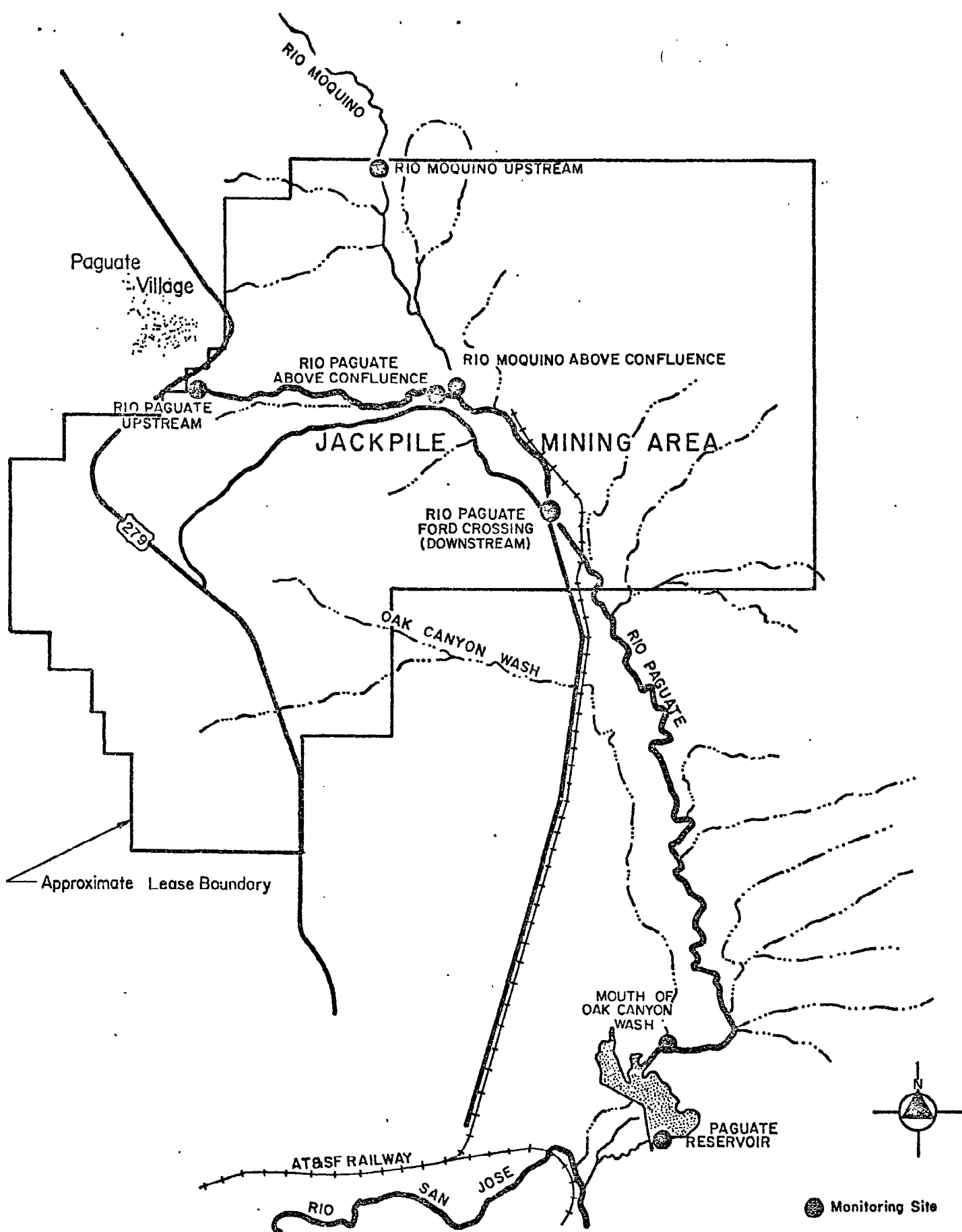
DESCRIPTION	DATE	pH	TDS ppm	Cond umhos	HCO ₃ ⁻ ppm	Cl ⁻ ppm	SO ₄ ⁼ ppm	Na ⁺ ppm	K ⁺ ppm	Ca ⁺⁺ ppm	Mg ⁺⁺ ppm	NO ₃ ⁻ ppm	F ⁻ ppm	SiO ₂ ppm	Mn ⁺⁺ ppm			
Rio Paguate Upstream	8/1/83	7.55	815	950	278	17.5	313	43.9	6.3	105	48.7	1.5	0.41	30.8	0.005			
Rio Moquino Upstream	8/1/83	7.76	1953	2510	234	26.1	1169	227	10.3	139	145	1.5	0.68	19.3	0.005			
Rio Paguate Above the Confluence	8/1/83	7.86	1562	3320	361	24.9	774	131	9.7	126	133	1.3	0.78	20.1	0.011			
Rio Moquino Above the Confluence	8/1/83	7.82	2606	3100	295	28.1	1588	300	10.2	187	195	1.1	0.95	16.7	0.005			
Rio Paguate Ford Crossing	8/1/83	7.75	2587	3000	317	30.3	1546	289	10.9	193	198	1.3	0.90	16.3	0.03			
Paguete Reservoir	8/1/83	7.06	1662	1980	437	35.2	751	188	20.8	108	118	1.4	0.72	6.8	1.6			
Jackpile #4			DISCONTINUED, NO SAMPLE															
Jackpile New Shop			DISCONTINUED, NO SAMPLE															
Jackpile Old Shop			DISCONTINUED, NO SAMPLE															
	DATE	As ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm	Cu ppm	Fe ppm	Zn ppm	Mo ppm	Ni ppm	V ppm				
Rio Paguate Upstream	8/1/83	<0.005	0.05	<0.001	<0.005	<0.01	<0.0005	0.005	0.006	0.016	0.009	<0.01	<0.005	<0.05				
Rio Moquino Upstream	8/1/83	<0.005	0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.006	0.008	0.005	<0.01	<0.005	<0.05				
Rio Paguate Above the Confluence	8/1/83	<0.005	0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.005	0.010	0.005	<0.01	<0.005	<0.05				
Rio Moquino Above the Confluence	8/1/83	<0.005	0.05	<0.001	<0.005	<0.01	<0.0005	<0.005	0.001	<0.005	0.003	<0.01	<0.005	<0.05				
Rio Paguate Ford Crossing	8/1/83	<0.005	0.05	<0.001	<0.005	<0.01	<0.0005	0.007	0.008	0.008	0.003	<0.01	0.005	<0.05				
Paguete Reservoir	8/1/83	0.012	0.19	<0.001	<0.005	<0.01	<0.0005	<0.005	0.005	0.053	0.01	<0.01	0.007	<0.05				
Jackpile #4			DISCONTINUED, NO SAMPLE															
Jackpile New Shop			DISCONTINUED, NO SAMPLE															
CONFIDENTIAL		DISCONTINUED, NO SAMPLE													POL-EPA01-0004702			

DESCRIPTION	DATE	pH	TDS ppm	Cond umhos	HCO ₃ ⁻ ppm	Cl ⁻ ppm	SO ₄ ⁻ ppm	Na ⁺ ppm	K ⁺ ppm	Ca ⁺⁺ ppm	Mg ⁺⁺ ppm	NO ₃ ⁻ ppm	F ⁻ ppm	SiO ₂ ppm	Mn ⁺⁺ ppm			
Rio Paguate Upstream	9/1/83	7.91	896	1080	334	11.3	313	43.7	7.3	129	53	3.6	0.46	30.6	0.13			
Rio Moquino Upstream	9/1/83	8.36	1453	1650	281	14.0	751	153	9.3	130	93	3.2	0.64	22.3	0.022			
Rio Paguate Above the Confluence	9/1/83	7.53	1988	2100	451	20.3	1001	150	10.6	194	156	3.2	0.74	20.0	0.65			
Rio Moquino Above the Confluence	9/1/83	8.39	1864	2020	281	16.9	1063	197	9.9	166	126	3.3	0.81	18.3	0.06			
Rio Paguate Ford Crossing	9/1/83	8.32	2017	2080	305	19	1152	207	9.9	182	138	3.1	0.81	17.7	0.24			
Paguate Reservoir	9/1/83	8.01	1786	1800	366	53.5	858	316	19.3	74	94	3.7	1.10	4.2	0.53			
Jackpile #4			DISCONTINUED, NO SAMPLE															
Jackpile New Shop			DISCONTINUED, NO SAMPLE															
Jackpile Old Shop			DISCONTINUED, NO SAMPLE															
	DATE	As ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm	Cu ppm	Fe ppm	Zn ppm	Mo ppm	Ni ppm	V ppm				
Rio Paguate Upstream	9/1/83	<0.005	0.07	0.001	<0.005	<0.01	<0.0005	<0.005	0.003	0.015	0.006	<0.01	<0.005	<0.05				
Rio Moquino Upstream	9/1/83	<0.005	0.08	0.001	<0.005	<0.01	<0.0005	<0.005	0.006	0.01	0.001	0.01	0.012	<0.05				
Rio Paguate Above the Confluence	9/1/83	<0.005	0.07	0.001	<0.005	<0.01	<0.0005	<0.005	0.004	0.011	0.003	<0.01	<0.005	<0.05				
Rio Moquino Above the Confluence	9/1/83	<0.005	0.08	0.001	<0.005	<0.01	<0.0005	<0.005	0.005	0.011	0.003	<0.01	<0.005	<0.05				
Rio Paguate Ford Crossing	9/1/83	<0.005	0.08	0.001	<0.005	<0.01	<0.0005	<0.005	0.004	0.026	0.002	<0.01	<0.005	<0.05				
Paguate Reservoir	9/1/83	<0.005	0.27	<0.001	<0.005	<0.01	<0.0005	<0.005	0.004	0.006	0.006	0.01	0.006	<0.05				
Jackpile #4			DISCONTINUED, NO SAMPLE															
CONFIDENTIAL Jackpile Old Shop			DISCONTINUED, NO SAMPLE															
			DISCONTINUED, NO SAMPLE															

POL-EPA01-0004703

LOCATION OF GROUND WATER MONITORING STATIONS





LOCATION OF
SURFACE WATER MONITORING STATIONS

JACKPILE - AIR SAMPLING SURVEY

THIRD QUARTER, 1983

<u>LOCATION</u>	<u>DATE</u>	<u>TOTAL PARTICULATE ugm/M³</u>	<u>U-Nat. uCi/mlx10-15</u>	<u>Ra-226 uCi/mlx10-15</u>	<u>Th-230 uCi/mlx10-15</u>	<u>Pb-210 uCi/mlx10-15</u>
1. Dump F		ELECTRICAL POWER DISCONTINUED, NO SAMPLE				
2. P-10 Area	7/83	28.13	0.947	0.356	1.06	17.35
	8/83	14.89	0.71	2.18	0.69	18.79
	9/83	20.49	0.77	0.17	1.31	18.21
3. West Gate	7/83	29.13	0.788	0.191	1.41	16.31
	8/83	17.95	0.48	0.23	0.92	20.59
	9/83	24.12	0.67	0.21	1.25	19.41
4. Well #4	7/83	27.42	1.01	0.184	1.09	19.44
	8/83	17.17	2.04	0.33	1.57	20.43
	9/83	23.48	0.91	1.09	1.09	18.72

JACKPILE-AMBIENT RADON SURVEY

THIRD QUARTER, 1983

<u>LOCATION</u>	<u>DATE</u>	<u>Rn-222</u> <u>pCi/L</u>
1. Dump F	7/83	2.92
	8/83	Discontinued
	9/83	Discontinued
2. P-10 Area	7/83	1.34
	8/83	1.76
	9/83	2.05
3. Well #4	7/83	1.05
	8/83	1.18
	9/83	1.54
4. Westgate	7/83	2.45
	8/83	2.37
	9/83	2.43

LOCATION OF AIR QUALITY MONITORING STATIONS

